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ABSTRACT

Perceptions of United Kingdom students concerning higher education, student choices of individual programs and institutions, and sources of information were studied in 1982, based on a national survey of over 1,500 student applicants to institutions of higher education, from 50 schools, and backed up by interviews with over 500 of those sampled. Six attributes of the sample were studied: geographic area, sex, school type, choice of subjects, career aspiration, and expected performance. Fifty-seven percent of the sample were studying all science or a majority of science subjects, compared with 43 percent studying arts or a majority of arts. The most popular career aspiration was engineering and technology, closely followed by business and social studies, medicine, sciences, and education. Students were also asked to indicate their expected grades; 67 percent of the sample responded. Forty-six percent of the students decided before age 15 to attend higher education, while 31 percent did not decide until they were over age 17. Among the 11 factors cited as important influences for college attendance were academic interest, personal satisfaction, and the need for college for the chosen career. Actual choices of institutions and programs, and specifically perceptions of one institution (Loughborough University of Technology), were also assessed. (SW)

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STUDENT PERCEPTIONS AND CHOICE OF HIGHER EDUCATION

- A NATIONAL STUDY

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Daniel R. Coleman, Chairman
Forum Publication
Advisory Committee

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ABSTRACT

Admissions planning requires examination of all the facets of the student choice process. Tierney (RIHE, Vol.18, No.3, 1983) points out that it is a complex sequential choice process and Calvert (SRHE, 1981) described the process for UK students as application, selection, election and examination.

This paper describes a national survey of over 1500 school students from 50 schools backed up by interviews with over 500 of those sampled to look specifically at student perceptions of Higher Education, student choices of programmes and in particular other sources of information.

Finally, comparisons are made with the results of two companion studies of applicants and entrants.

INTRODUCTION

The student choice process has been partitioned by Kohn et al (1974), Racher and Miller (1975), McPherson (1978) all in slightly different ways. Calvert (1981) describes this complex sequential choice process for UK students as consisting of application to an institution, selection by that institution, acceptance of a conditional place (election) and finally, examination performance. Larkin (NDIR No.21) states that the marketing model for colleges must begin with the student and that student preferences and student behaviour usually coincide but not always. Hence, Calvert (1981) suggests that the first step in admissions planning must be an examination of the applicant pool to identify student perceptions of Higher Education and Higher Education programmes.

PURPOSE

During 1982 three surveys were mounted in the UK to look at the applicant pool, the resulting applicants and the eventual entrants. The study described in this paper set out to survey a cross section of the national applicant pool with the aim of identifying student perceptions of Higher Education, their choices of individual programmes and institutions, and their major sources of information. A subsiduary aim was to identify the various segments of the applicant pool as Lay Magure and Litten (RIHE, Vol.16) had done in 1982.

SIMILAR WORK

In the 1960's Clark and Trow (1966) pointed out that there were several broad types of applicant and Super (1968) identified a work values inventory with which the differences in student perceptions could be analysed. These concepts are at the heart of the work in the 1970's which takes a marketing approach to admissions planning (NDIR, No.21).

In the UK the tendency has been to concentrate on either a typology for institutions or on the socioeconomic groupings within the applicant pool (Halsey et al, 1970). However, Morris in 1968 drew up a list of factors which may be important in student choice of programmes and the study described in this paper uses his approach to help identify student perceptions rather than student attributes.

DATA SOURCES

The national statistics (UCCA, 1970) provided a guide as to the geographical makeup of the applicant pool and this enabled a selection of seven counties within each of which a varied selection of schools was surveyed. The study involved over 50 schools and 1,350 school students backed up by interviews with over 500 of those sampled.

METHODOLOGY

The survey instrument was a questionnaire delivered to each school in the Survey and given to every student in the applicant pool for completion and return en mass by the school. This led to a high response rate in every part of the country. Since each county has a mixture of educational systems the approach involved identifying all the various types of school or college within a county and sampling accordingly. For example, in one county there were only sixth form colleges, whereas in another there were comprehensives, selective schools and Further Education colleges.

THE QUESTIONNAIRE

The study examined five main areas. Firstly, there were the attributes of those school students samples, e.g. sex, type of school, mix of subjects and estimated performance. Secondly, there were their attitudes to Higher Education. Thirdly, there were their actual choices of programmes and institutions. Fourthly, there were their sources of information and influence used when choosing programmes and institutions and, fifthly, there were their perceptions of one university in particular - Loughborough University of Technology.

ATTRIBUTES

The total sample had slightly more males than females (53% to 47%) which is, in fact, a slight bias towards females. The types of school involved are shown in Table 1. The sample was arranged to provide a broad mix of types of school environment rather than a reflection of the national proportions. It was surprising, however, to see the wide variations in educational systems within virtually every county visited.

Table 1 - Type of School

(1,550 students sampled)

Sixth Form Colleges	515 (students)
Comprehensives	306
Selective Schools	303
Further Education	277
Independents	149

In terms of choice of subjects (at A-level) 57% of the sample were studying all science or a majority of science subjects compared with 43% studying arts or a majority of arts. In addition, 50% of the sample had a future career in mind. The most popular being Engineering and Technology (22%) closely followed by Business and Social Studies (18%), Medicine (17%), Sciences (17%), and Education (13%).

The students were also asked to indicate their expected A-level grades and 67% of the sample did so. On a points basis (A=5, B=4, etc.) the average 3 A-level point score for those sampled was 9.7 which lies between B,C,C and C,C,C. However, there were quite wide variations geographically within the sample.

Table 2 - Expected Grade Score

(1,044 responses)

South East	10.3
Midlands	9.7
South West	9.4
North West	9.2
North East	9.1

Table 2 shows that the study sampled students with higher grades in the South East of England and students with a wider range of grades in the North. It does not prove anything about the general performance in each area.

INTERACTION BETWEEN ATTRIBUTES

In using a stratified cluster sample it was inevitable that each geographical area would provide a different mix of types of school or college. Other than that the areas were remarkably similar in sex, mix of subjects, career in mind and expected performance.

Males and females, on the other hand, had significantly different choices of subjects and careers but not expected performance.

Table 3 - A-Level Mix by Sex

	Male	Female
All Science	53%	30%
Majority Science	17%	12%
Majority Arts	11%	15%
All Arts	19%	43%
TOTAL	100%	100%

Table 4 - Career in Mind

	Male	Female
Eng & Tech	35%	7%
Sciences	33%	41%
Social Sciences	19%	17%
Education	7%	20%
Lang. & Humanities	6%	15%
TOTAL	100%	100%

Table 3 and Table 4 are self-explanatory and show similar things given that A-level mix and career are strongly linked. For both males and females the overall pattern is given by Table 5.

Table 5 - A-Level Mix v Career

	All Science	Majority Science	Majority Arts	All Arts	TOTAL
Eng & Tech	78%	19%	1%	2%	100%
Sciences	82%	14%	2%	2%	100%
Social Sciences	16%	12%	26%	45%	100%
Education	14%	10%	14%	62%	100%
Lang. & Humanities	8%	16%	15%	62%	100%

Type of school on the other hand is not linked to A-level mix or career, but all three are strongly linked to expected performance as in Tables 6 and 7.

Table 6 - A-Level Mix v Expected Grade Score

Points	All Science	Majority Science	Majority Arts	All Arts	TOTAL
1 - 6	36%	17%	11%	35%	100%
7 - 9	43%	17%	13%	27%	100%
10 - 12	45%	10%	14%	31%	100%
13 and over	62%	14%	8%	17%	100%

Table 7 - Type of School v Expected Grade Score

Points	Selective	Comprehensive	Sixth Form College	Independent	F.E College	TOTAL
1 - 6	8%	18%	41%	5%	29%	100%
7 - 9	21%	20%	32%	9%	17%	100%
10 - 12	17%	19%	37%	14%	13%	100%
13 and over	20%	23%	34%	20%	4%	100%

The students taking all science subjects seem to be expected to get higher grades than the others and in particular than those taking all arts. Also, the selective and independent schools produce the higher expectation of grades, whereas the F.E colleges in particular produce lower expectations.

Considering the six attributes examined, namely area, sex, school type, choice of subjects for A-level, career in mind and expected performance, these relationships are not unexpected. The interesting thing is that there are no meaningful relationships other than those mentioned above. For each choice of subjects was not linked to type of school.

PERCEPTIONS OF HIGHER EDUCATION

Firstly, the school students were asked when they decided to go to university and, secondly, they were asked to rate on a 1, 2, 3 scale a number of influencing factors - 1 for unimportant, 2 for fairly important and 3 for important.

The timing of the students decisions is often ignored in looking at entrance to Higher Education and Table 8 shows what that timing was for those sampled.

Table 8 - When was H.E.Chosen

(1,550 students sampled)

Before Secondary School	14%
1st-4th Year Secondary	32%
5th Year	23%
6th Year	31%

The students sampled demonstrated the difficulties of providing career advice in schools since, on the one hand, 46% decided before the age of 15 to go onto Higher Education and, on the other, 31% didn't decide until they were over 17. This pattern was fairly consistent geographically in that the ranking was almost identical. In fact, the two attributes that affected the timing of the decision to go to University were sex, and expected performance. Females at independent schools females taking science subjects and/or with engineering or sciences careers in mind all decided earlier than the males. Expected performance was an obvious influence and as expected, lower grade expectation students chose late and high grade expectation students chose early. Indeed, 50% of low grade expectation chose as late as possible, whereas 50% of high grade expectation students chose as early as possible.

IMPORTANT FACTORS IN DECIDING TO GO TO UNIVERSITY

Following (Morris 1968) the students were asked to give eleven factors a measure of importance in their decision to go into Higher Edcuation. These factors included personal, career, family and social factors, but it was staggering to see the uniformity of ranking geographically. Table 9 shows the scores obtained for each factor.

Table 9 - Important Factors

3=Important 2=Fairly Important 1=Unimportant

Academic Interest	2.60
Personal Satisfaction	2.53
Important for Chosen Career	2.33
More Secure Job	2.18
Greater Choice of Career	2.16
Better Paid Job	2.13
Meet People & Postpone Career Decisions	1.99
Advice from School	1.48
Parental Expectations	1.45
Automatic Progression	1.40
Friends are all going to University	1.15

Some of these factors are of a similar nature but it is quite important to note that there was a definite clustering as shown above.

Every region returned the highest scores for academic interest and personal satisfaction followed after an obvious gap by the career based factors with the family and school influences lagging well behind. The latter is not unexpected when asking seventeen year olds about their decisions, but it is borne out elsewhere in the study that they do not feel they have to find things out for themselves and use their own judgement.

Within the clusters of factors there were some variations. For example, females rated wider choice of job above security and pay, whereas males rated pay above security and choice. This pattern followed through into variations due to choice of subjects and career with science/engineering following the male pattern and social sciences, education and languages following the female pattern.

Between clusters the only different ordering came from pupils at independent schools who rated potential expectation a great deal higher than others sampled. Incidentally, the timing of the decision matches these rankings quite neatly in that as the decision gets later the advice from school gets more important, the parental expectations less important, and the feeling of automatic progression gets less important as one would expect.

ACTUAL CHOICES OF INSTITUTIONS

The respondents were asked what five University courses they had applied for and what Polytechnic courses they had applied for. These responses were then grouped by type of institution and type of course. It can safely be assumed that students choose their course type first and then the institutions second. However, there are still some interesting patterns in their choice of institutions. Table 10 shows the type of institution placed in first choice position.

Table 10 - First Choice University

Civics	568
Technological	223
London	149
New	125
Oxbridge	124
Wales	52
Scotland	51

There was very little difference in the pattern between preferences 1 to 5 except that Oxbridge , where present, came in first place and the University of Wales, where present, had more of the lower preferences than the higher. The variations within this type related to the University of London and the new universities in the sense that the North and Midlands put London low and the South put London high. Also, the science students put London high and the new universities low, whereas the arts students did the reverse.

University location was strongly influenced by region in that the Northern students preferred to stay in the North (60%) and the Southern students preferred to stay in the South (60%) with about 25% of Midlands students preferring to stay in the Midlands. The easiest way to categorise this pattern is to examine the communication links and the relative location of different conurbations to the students in the different areas. The map of England seems to be distorted as the position of the observer changes. The pattern was identical for the polytechnics.

ACTUAL CHOICES OF PROGRAMMES

The school students sampled had applied for a wide range of courses which can be grouped using the UGC classifications. Table 11 shows the first choice courses.

Table 11 - First Choice Courses - Most Popular

Sciences	337
Social Sciences	288
Engineering & Tech.	165
Languages inc.English	148
Medicine	122
Humanities	76
Multi-disciplinary	61

This ordering was identical in all geographical areas but the male/science, female/arts biases changed the ordering accordingly (eg. for males sciences, social science, eng. & tech., medicine, language, and for females social science, sciences, languages, medicine, humanities). Obviously, students with different A-level mix and career in mind chose different courses and the relationship between subjects and expected performance feeds through into a link between choice of course and expected grades.

SOURCES OF INFORMATION AND INFLUENCE

When disclosing their choice of courses, those sampled were asked to indicate their sources of information and influence for each institution and course. The prospectus was the most important influence followed closely by personal contact. In other words, self-help was seen as a major part of the exercise. Table 12 shows the three factors chosen by the respondents in connection with their first choice.

Table 12 - First Choices Influences - Ranking

	Institution	Course
Prospectus	1	1
Personal Contact	2	3
Univ.Prestige	3	6
School and/or LEA Advice	4	2
Visits	5	8
UCCA Handbook	6	7
Career's books/films	7	4
Talks	8	5

The lesson here is that universities in particular should critically examine their publicity material and in addition help the schools abd LEA's to advise on courses.

THE NATIONAL APPLICANT POOL

The applicant pool is remarkably uniform except for the most obvious variations. For example, choice of subjects at school, linking with choice of course at University.

Perceptions of Higher Education are also very uniform with very robust clusters of important factors.

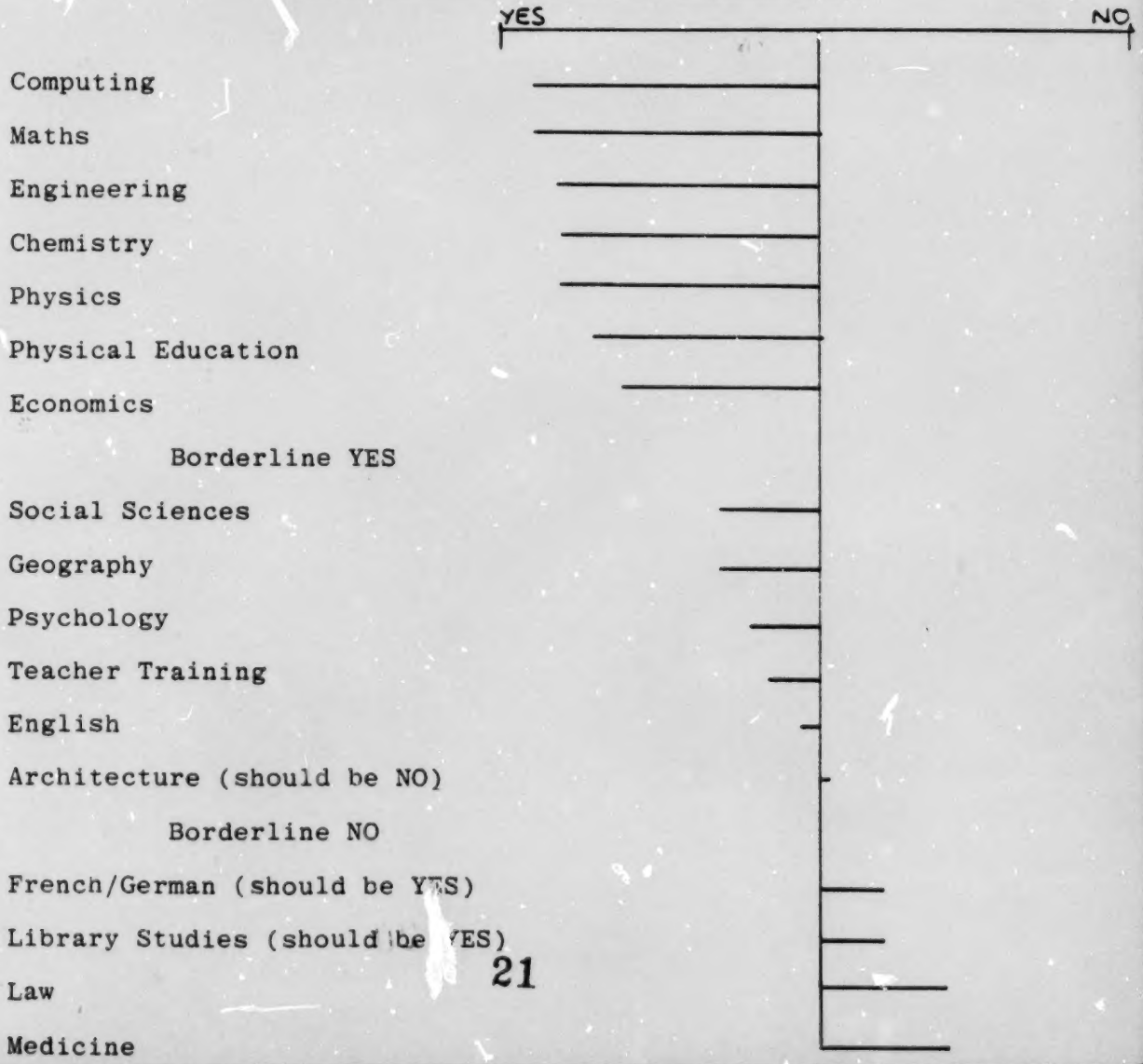
Choices of institutions are mainly geographically biased whereas choice of courses is essentially subject biased. The sources of information and influence are candidate based rather than school or education authority based.

Incidentally, the questionnaire also included some questions regarding the importance of residential factors. The most popular choice here was an institution away from home and the next most popular factor was a city site university which, of course, ties in with the choice of civic universities. The type of accommodation was less important.

PERCEPTIONS OF ONE INSTITUTION - LOUGHBOROUGH

The final part of the questionnaire asked those students who had heard of Loughborough University of Technology to comment about it. In fact the number in the sample that had applied to Loughborough was pretty low. However, the remarkable thing was the uniformity of image geographically, by type of school and by type of course. A fairly robust image seems to exist which does not match the reality in certain aspects. Table 13 shows the strength and direction of opinion about subjects at Loughborough.

Table 13 - Subjects at Loughborough

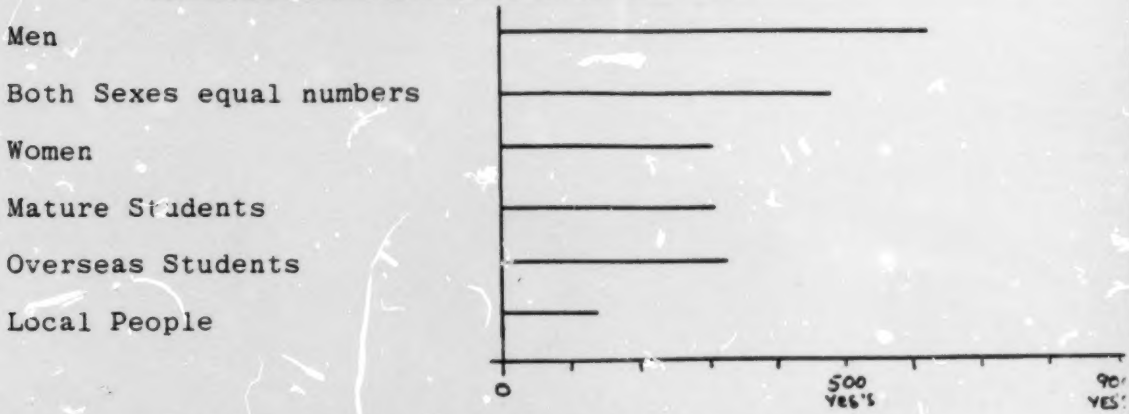


There are a range of subjects, Social Sciences down to Architecture in Table 13 that are in the borderline YES/NO category and all should be YES except for Architecture. Then there are French/German which is a reasonably strong teaching area at Loughborough and Library Studies which is taught in one of the strongest Library schools in the country, but which is put on a par with Law and Medicine as a subject not taught at Loughborough. These erroneous perceptions were repeated ad nauseum through each geographical region. This proves the respondents did not scan the prospectus before answering this part of the questionnaire!

If the sample is broken down according to the six attributes mentioned earlier, the fascinating outcome is that there is no difference in the strength of opinion for all the subjects listed except for Teacher Training, English, and Architecture and Library Studies but <u>not</u> French or German. Furthermore the only attributes which provided a link were area and sex for the first three and career for Library Studies, and so the sample was remarkably uniform in its perceptions of subjects at Loughborough.

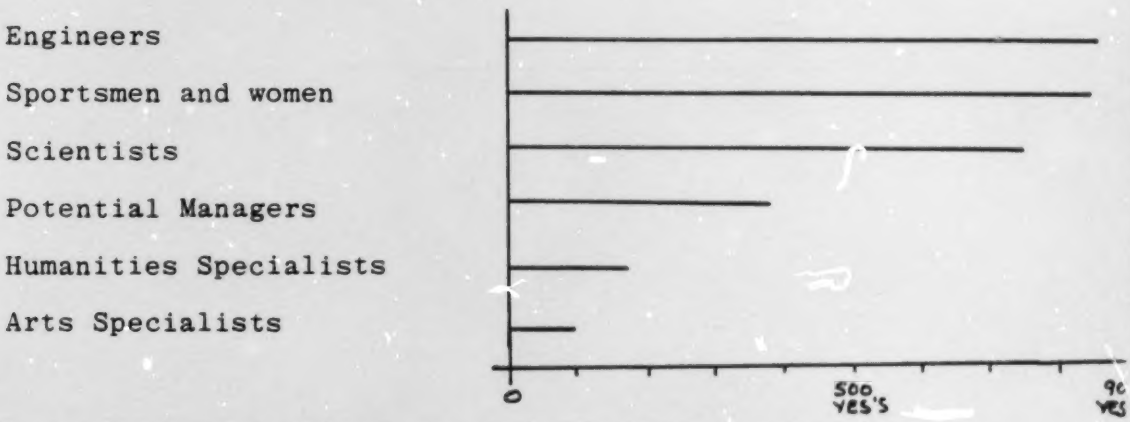
Tables 14 and 15 show the strength of opinion regarding the types of people at Loughborough.

Table 14 - People at Loughborough



The perception of Loughborough seems to be of a mainly male institution with a small but appreciable number of mature students and overseas students with very few local people.

Table 15 - Careers at Loughborough



Loughborough historically was a technological institution which then took over in the last five years a college of education with a national reputation for physical education. It is interesting to see these two strands coming through in the right order but with an over estimating of the sportsmen strength which is now about 10% and an under estimating of the numbers of potential managers which is also 10%.

COMMENT

The major source of information for applicants is the university prospectus and so a university should pay particular attention to the image its prospectus gives, but also try to provide schools with information that properly reflects the mix of subjects, people and careers so that applicants can consider the real university, not their mental picture of it.

POSTSCRIPT

Two comparison studies were carried out involving a sample of applicants to Loughborough and a sample of entrants to Loughborough. Most of the results mentioned above were mirrored in these two studies with only the Entrants having a different picture of Loughborough. Their perceptions and choices, however, were very similar to the main study described in this paper.

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